

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040); and River Corridor Closure Project (RL-0041)

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Resumption of drilling activities at 216-A-4 Crib



SR 240, SR 225, and Route 10 Highway Upgrade

Before



During

After



Initiated demolition of 203U.



Demolition of 3762 Buildings

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation and Decommissioning (M. B. Lackey);
- Waste Site Remediation (M. B. Lackey); and
- Reliability Projects (M. M. Belles).

This section also includes PBS RL-0041, *Nuclear Facility D&D, River Corridor Closure Project*, until this work scope transitions to the River Corridor Contractor (M. B. Lackey).

NOTE: Unless otherwise noted, all information contained herein is as of the end of April 2005.

Notable Accomplishments

PBS RL-0040, Nuclear Facility D&D, Remainder of Hanford

Deactivation and Decommissioning:

U Plant Demolition Project:

During this reporting period, demolition of the 203U structure was initiated. The 203U concrete basin contaminated walls and three of five uranyl nitrate hexahydrate (UNH) tanks were removed. Completion of the U Plant Ancillary Facility demolition is forecast in July 2005, eight months ahead of schedule and \$5.5M under budget.

Waste Site Remediation:

200 Area Remedial Investigation/Feasibility Study (RI/FS) Work:

200-MW-1 Miscellaneous Waste Group Operable Unit Drilling, sampling, and decommissioning was completed at the 200-E-4 French Drain on April 13, 2005. The trenching and sampling for 216-T-13 Trench was completed at the 200-PW-1 Plutonium/Organic Rich Process Waste Group on April 29, 2005. Vapor sampling from five existing boreholes was completed at the 216-A-8 Crib on April 21, 2005, and the data from this sampling will be used to help determine the borehole location.

U Plant Zone Closure:

RL submitted the U Waste Sites Focused Feasibility Study (FS) and Proposed Plan (PP) to regulators on April 4, 2005. A notice was faxed on April 8, 2005, for the PP public review to start on May 9, 2005. In early May, the State of Washington Department of Ecology's (Ecology's) closure of the 216-U-12 Crib Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) unit changed direction from a closure plan to an administrative closure. As a result, FH prepared and RL transmitted to Ecology supporting information for administrative closure of the RCRA TSD unit on May 13, 2005. Due to the prompt response, the start of the PP public comment period was delayed only one week to May 16, 2005. Ecology briefed the Hanford Advisory Board River and Plateau Committee on the PP on May 11, 2005.

BC Cribs and Trenches:

Field work associated with obtaining High Resolution Resistivity (HRR) scans was completed on April 25, 2005. Combining data from the forty-two scans shows an apparent continuous contamination plume more than 100 feet deep beneath the trenches and cribs. The HRR data also displays an apparent deeper plume in the vicinity of the cribs.

Notable Accomplishments, continued

Reliability Projects:

Reliability projects provided support in April to the Washington State Department of Transportation for State Route (SR) 240, SR 225, and Route 10 Highway Upgrade.

FH Closure Services and Infrastructure (CS&I) completed Emergency Decontamination Facility Demolition Activities with no occupational injuries or skin contaminations while working with an outside demolition contractor during the month of April.

PBS RL-0041, Nuclear Facility D&D, River Corridor Closure Project

Uranium Disposition:

Final shipment of uranium fuel was completed May 17, 2005, completing the Tri-Party Agreement (TPA) Milestone M-92-06-T02 16½ months ahead of schedule.

Special Case Waste:

A total of 22 cans/materials have been identified for removal from dry storage. All 22 cans have been moved into the upper levels of the unit and are waiting for final removal to A Cell. The second and third lead-lined drums (LLDs) were loaded April 26, 2005, and April 29, 2005, respectively. Non-Destructive Analysis (NDA) was performed on three of the four LLDs on May 4, 2005. The Ion-Exchange Column (IXC) shipping containers were received on April 27, 2005, and a positive USQ due to hydrogen accumulation in the IXCs was declared on May 2, 2005.

300 Area D&D:

Demolition of 3762 Building is underway which brings the total number of 300 Area structures demolished to 13. In addition to 3762 Building, five other structures are currently being prepared for demolition, and are scheduled to be complete by mid-July. Based on this progress, DOE has directed FH to demolish two additional structures (3763 and 3701D buildings) by mid-September.

FY 2005 Funds vs. Spend Forecast (\$M)

	Projected FY 2005 Funding	FY 2005 Fiscal Year Spend Forecast	Variance
Nuclear Facility D&D, Remainder of Hanford	\$ 80.0	\$ 76.6	\$ 3.4
Nuclear Facility D&D, River Corridor Closure	\$ 19.9	\$ 17.0	\$ 2.9
Total	\$ 99.9	\$ 93.6	\$ 6.3

FY 2005 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
Nuclear Facility D&D, Remainder of Hanford	\$35.8	\$39.3	\$35.9	\$3.5	9.8%	\$3.4	8.7%	\$71.9
Nuclear Facility D&D, River Corridor Closure	\$9.9	\$10.8	\$9.0	\$0.8	8.4%	\$1.7	16.0%	\$19.5
Total	\$45.8	\$50.1	\$45.0	\$4.4	8.7%	\$5.1	10.2%	\$91.4

are rounded to the nearest \$0.1M.

Schedule Performance (+\$4.4M/+8.7%):

RL-40 – Waste Sites' unfavorable SV (-\$2.1M) is due to delays to 200-PW-1 Plutonium/Organic-Rich Process Waste Group A-8 borehole and Step 2 field investigations. The A-8 Borehole and Step 2 field investigations are expected to be completed during FY 2005. Additionally, Record of Decision (ROD) delays have caused delays to confirmatory sampling, remedial design, and planning for barrier construction at U Plant Waste Sites. Delays to U Plant will continue to grow in FY 2005, but will be recovered during FY 2006 by performing Remedial Design Report/Remedial Action Work Plan reviews concurrently, and completing construction in a shorter period of time. The Surveillance and Maintenance (S&M) unfavorable SV (-\$0.2M) is due to ventilation system shutdown, and PUREX NESHAPs activities delayed pending path forward. These unfavorable variances were offset by favorable progress on D&D activities (\$2.7M).

In Reliability Projects, the favorable SV (+\$3.1M) is due to progress in completing FY 2004 carryover work scope and ahead of schedule FY 2005 projects (\$7.1M), and offset by delays in initiating new starts due to continuing resolution and pending funding decisions related to the Integrated Priority List (-\$4.0M). The majority of prior year work scope will be completed by yearend; \$4.2M of FY 2005 work scope is projected to carry over into FY 2006.

The favorable variance in PBS RL-0041 (+\$0.8M) is due to uranium shipments being accomplished ahead of plan.

Cost Performance (+\$5.1M/+10.2%):

RL-40 – The favorable CV is primarily the result of D&D efficiencies in demolition activities (+\$4.4M), and Project Management and Support (PM&S) controlling cost (+\$0.9M). This is offset by the Wastes Sites' (-\$2.4M) additional costs to support the U Plant ROD process, decision documents, and barrier design planning. The U Plant Waste Sites' overrun will be recovered during barrier construction. The S-7 (200-PW-2 Uranium Rich Process Waste Group) T-28 and Z-7 boreholes (200-LW-1, 200 Area Chemical Lab Waste Group) cost more than planned due to the unexpected levels of contamination found. The 200-LW-1 and 200-PW-2 overruns are not recoverable.

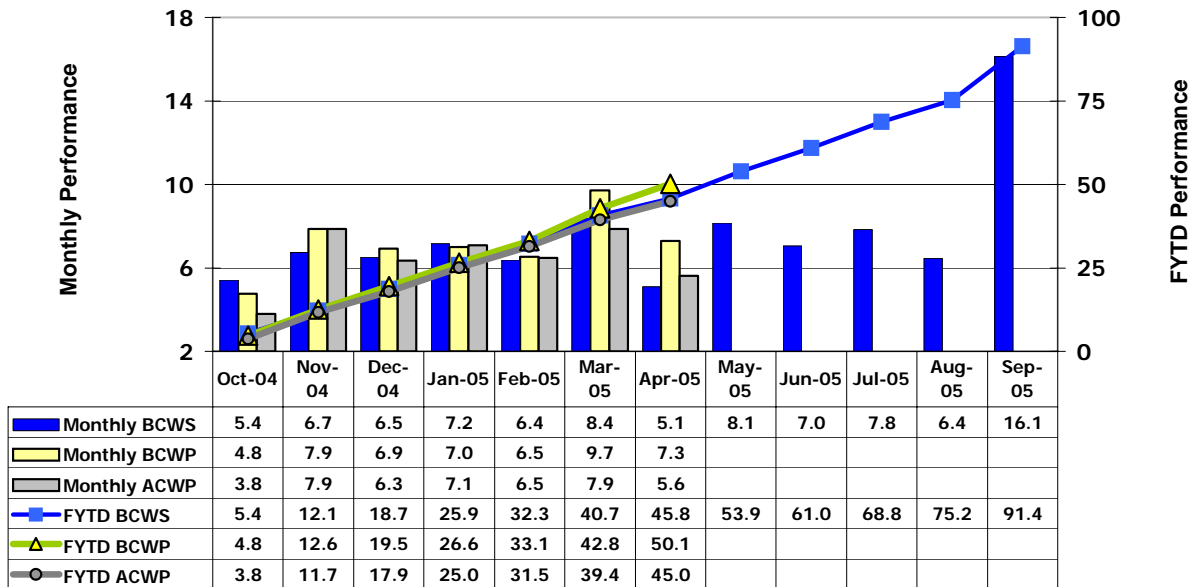
In Reliability Projects, the favorable cost variance (+\$0.4M) is due to cost suspended due to DOE financial system implementation issues (\$0.9M). FH Finance is working with RL to resolve issues and anticipate sending cost through in May. Project L-334, "Minimize Potential Environmental Impacts from Export

Water System Ruptures," and L-376, "Facility Safety and Efficiency Renovations," cost increases are due to the nation-wide increase in the cost of steel and large fabricated parts (-\$0.4M).

The favorable cost variance for PBS RL-0041 (+\$1.7M) is due to continued efficiencies in 300 Area S&M, Uranium Disposition, and 300 Area Treated Effluent Disposal Facility (TEDF) operations.

FY 2005 Schedule/Cost Performance, continued

Performance Analysis FYTD and Monthly (\$M)



Milestones

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
RL-0040	TRP-03-242 M-015-40C	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group FS & Submit	HQ	10/31/04	10/29/04		Completed ahead of schedule
RL-0040	WMG-05-001 M-091-40L-004	M-91-40L.1.D Submit Quarterly Burial Ground Vent and substrate Sample	HQ	12/01/04	11/12/04		Completed ahead of schedule
RL-0040	TRP-03-139 M-013-000	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	12/31/04	12/20/04		Completed ahead of schedule
RL-0040	WMG-04-009 M-091-40K	M-91-40K Update 218-E-12B SAP	HQ	01/15/05	08/24/04		Completed ahead of schedule
RL-0040	WMG-05-005 M-091-40L-005	M-91-40L.2.A Submit Quarterly Burial Ground Vent and substrate Sample	HQ	03/01/05	02/17/05		Completed ahead of schedule
RL-0040	WMG-05-010 M-091-40J	M-91-40J UPDATE 218-W-3A SAP	HQ	45 day before field work begins			On schedule
RL-0040	WMG-05-009 M-091-40I	M-91-40I Update 218-W-4B SAP	HQ	45 day before field work begins			On schedule
RL-0040	WMG-05-006 M-091-40L-006	M-91-40L.2.B Submit Quarterly Burial Ground Vent and substrate Sample	HQ	06/01/05			On schedule
RL-0040	WMG-05-007 M-091-40L-007	M-91-40L.2.C Submit Quarterly Burial Ground Vent and substrate Sample	HQ	09/01/05			On schedule
RL-0040	TRP-03-260 M-015-46A	200 Area Chemical Lab Waste OUs Remedial Investigation Report.	HQ	10/31/05			On schedule

Milestones, continued

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
RL-0040	TRP-03-248 M-020-39	Submit 216 S-10 Pond and Ditch Closure Plan to Ecology	HQ	11/30/05			On schedule
RL-0040	TRP-03-245 M-015-39C	Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed	HQ	11/30/05			On schedule
RL-0040	WMG-06-001 M-091-40L-008	M-91-40L.2.D Submit Quarterly Burial Ground Vent and substrate Sample	HQ	12/01/05			On schedule
RL-0040	TRP-04-324	Issue Action Memorandum for U Plant Ancillary Facilities	RL	12/31/05	01/23/04		Completed ahead of schedule
RL-0040	TRP-04-323	Issue Record-of-Decision for Canyon Disposition Initiative	RL	12/31/05			On schedule
RL-0040	TRP-03-257 M-020-33	Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc.	HQ	12/31/05			On schedule
RL-0040	TRP-03-263 M-015-44A	200-MW-1 OU Remedial Investigation Report	HQ	12/31/05			On schedule
RL-0040	TRP-03-254 M-015-43C	Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod	HQ	12/31/05			On schedule
RL-0040	WMG-06-005 M-091-40L-009	M-91-40L.3.A Submit Quarterly Burial Ground Vent and substrate Sample	HQ	03/01/06			On schedule
RL-0040	TRP-04-320	Demolish Ten U Plant Ancillary Facility Structures	RL	03/31/06		07/31/05	Forecast ahead of schedule
RL-0040	TRP-04-321	Demolish 10 B Plant Structures	RL	03/31/06	09/14/04		Completed ahead of schedule
RL-0041	TRP-04-325	Package, Ship and Dispose of Remaining N Reactor Fuel	RL	03/31/06		05/31/05	Forecast ahead of schedule
RL-0040	WMG-06-006 M-091-40L-010	M-91-40L.3.B Submit Quarterly Burial Ground Vent and substrate Sample	HQ	06/01/06			On schedule
RL-0040	WMG-06-007 M-091-40L-011	M-91-40L.3.C Submit Quarterly Burial Ground Vent and substrate Sample	HQ	09/01/06			On schedule
RL-0040	TRP-03-266 M-015-46B	200 Area Chemical Laboratory Waste OUs Feasibility Study	HQ	09/30/06			On schedule
RL-0040	WDG-06-402	Remediate BC Cribs and Trenches	RL	09/30/06			On schedule
RL-0040	WDG-06-401	Remediate U Plant Area High RiskWaste Sites	RL	09/30/06			On schedule
RL-0040	TRP-04-322	Demolish 12 additional B Plant Structures	RL	09/30/06	09/14/04		Completed ahead of schedule
RL-0041	TRP-04-326 M-092-06-T02	Complete the Disposal/Disposition of Un-Irradiated Metal Fuel	RL	09/30/06		05/31/05	Forecast ahead of schedule
RL-0041	TRP-04-326 M-092-16-T02	Complete Removal of Phase III Special Case Waste from 300 Area	RL	09/30/06		09/30/05	Forecast ahead of schedule